

IN THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in this application:

Claims 1-24 (Cancelled)

25. (Previously Presented) A dispersion comprising at least one aqueous phase and at least one oily phase, wherein the aqueous phase comprises a polymer comprising water-soluble units and units with an LCST, the units with an LCST having in water a demixing temperature of from 5 to 40°C at a concentration of 1% by mass, and the polymer being present in the aqueous phase at a concentration such that the gel point of the aqueous phase is from 5 to 40°C, to ensure the stability of the dispersion when it is subjected to temperature variations in the range from 4 to 50°C.

26. (Previously Presented) The dispersion as claimed in claim 25, formed by an oil-in-water emulsion in which water is the aqueous phase.

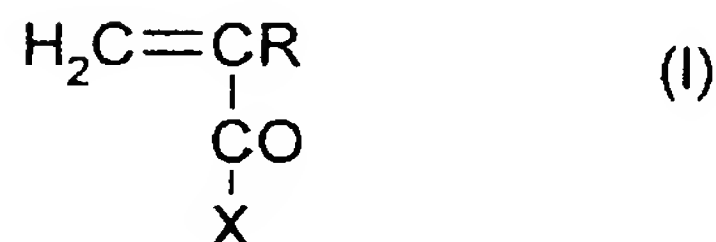
27. (Withdrawn) The dispersion as claimed in claim 25, formed by a water-in-oil-in-water multiple emulsion.

28. (Previously Presented) The dispersion as claimed in claim 25, formed by a dispersion of mineral and/or organic particles in the aqueous phase of an oil-in-water emulsion.

29. (Currently Amended) The dispersion as claimed in claim 25, in which the polymer is in the form of a block polymer comprising water-soluble units alternating with units with an LCST, or in the form of a grafted polymer whose backbone is formed from water-soluble units and bears grafts consisting of units with an LCST, ~~this structure possibly being partially crosslinked.~~

30. (Currently Amended) The dispersion as claimed in claim 25, in which the water-soluble units are obtained by free-radical polymerization of at least one monomer ~~chosen~~ from-selected from the group consisting of:

- (meth)acrylic acid;
- vinyl monomers of formula (I) below:



in which:

- R is ~~chosen from~~ H, -CH<sub>3</sub>, -C<sub>2</sub>H<sub>5</sub> or -C<sub>3</sub>H<sub>7</sub>, and
- X is ~~chosen from~~:
- alkyl oxides of -OR' type in which R' is a linear or branched, saturated or unsaturated hydrocarbon radical containing from 1 to 6 carbon atoms, optionally substituted with at least one halogen atom (selected from the group consisting of iodine, bromine, chlorine ~~or~~ and fluorine); a sulfonic (-SO<sub>3</sub><sup>-</sup>), sulfate (-SO<sub>4</sub><sup>-</sup>), phosphate (-PO<sub>4</sub>H<sub>2</sub>); hydroxyl (-OH); primary amine (-NH<sub>2</sub>); secondary amine (-NHR<sub>1</sub>), tertiary amine (-NR<sub>1</sub>R<sub>2</sub>) or quaternary amine (-N<sup>+</sup>R<sub>1</sub>R<sub>2</sub>R<sub>3</sub>) group with R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> being, independently of each other, a linear or branched, saturated or unsaturated hydrocarbon radical containing 1 to 6 carbon atoms, with the proviso that the sum of the carbon atoms of R' + R<sub>1</sub> + R<sub>2</sub> + R<sub>3</sub> does not exceed 7; and
- -NH<sub>2</sub>, -NHR<sub>4</sub> and -NR<sub>4</sub>R<sub>5</sub> groups in which R<sub>4</sub> and R<sub>5</sub> are, independently of each other, linear or branched, saturated or unsaturated hydrocarbon radicals containing 1 to 6 carbon atoms, with the proviso that the total number of carbon atoms in R<sub>4</sub> + R<sub>5</sub> does not exceed 7, the said R<sub>4</sub> and R<sub>5</sub> optionally

being substituted with a halogen atom ( selected from the group consisting of iodine, bromine, chlorine ~~or~~ and fluorine); a hydroxyl (-OH); sulfonic (-SO<sub>3</sub><sup>-</sup>), sulfate (-SO<sub>4</sub><sup>-</sup>); phosphate (-PO<sub>4</sub>H<sub>2</sub>); primary amine (-NH<sub>2</sub>); secondary amine (-NHR<sub>1</sub>), tertiary amine (-NR<sub>1</sub>R<sub>2</sub>) and/or quaternary amine (-N<sup>+</sup>R<sub>1</sub>R<sub>2</sub>R<sub>3</sub>) group with R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> being, independently of each other, a linear or branched, saturated or unsaturated hydrocarbon radical containing 1 to 6 carbon atoms, with the proviso that the sum of the carbon atoms of R<sub>4</sub> + R<sub>5</sub> + R<sub>1</sub> + R<sub>2</sub> + R<sub>3</sub> does not exceed 7;

- maleic anhydride;
- itaconic acid;
- vinyl alcohol of formula CH<sub>2</sub>=CHOH;
- vinyl acetate of formula CH<sub>2</sub>=CH-OCOCH<sub>3</sub>;
- N-vinyl lactams ~~such as N-vinylpyrrolidone, N-vinylcaprolactam and N-butyrolactam;~~
- vinyl ethers of formula CH<sub>2</sub>=CHOR<sub>6</sub> in which R<sub>6</sub> is a linear or branched, saturated or unsaturated hydrocarbon radical containing from 1 to 6 carbons atoms;
- water-soluble styrene derivatives, ~~especially styrene sulfonate;~~
- dimethyldiallylammonium chloride; and
- vinylacetamide.

31. (Withdrawn) The dispersion as claimed in claim 25, in which the water-soluble units ~~consist~~ are totally or partially of one or more of the following components:

- water-soluble polyurethanes,
- xanthan gum,
- alginates and derivatives thereof ~~such as propylene glycol alginate,~~
- cellulose derivatives ~~and especially carboxymethylcellulose,~~  
~~hydroxypropylcellulose, hydroxyethylcellulose and quaternized hydroxyethylcellulose,~~

- galactomannans and derivatives thereof ~~such as konjac gum, guar gum, hydroxypropylguar, hydroxypropylguar modified with sodium methylecarboxylate groups, and hydroxypropyltrimethylammonium guar chloride, and~~

- polyethyleneimine.

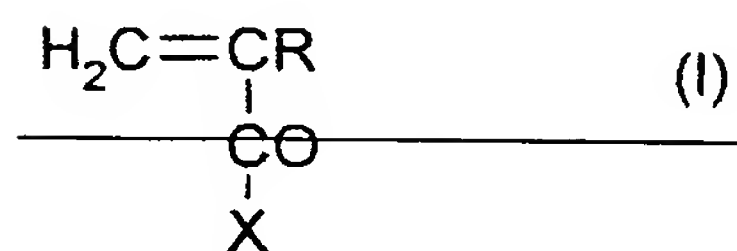
32. (Previously Presented) The dispersion as claimed in claim 25, in which the water-soluble units have a molar mass ranging from 1000 g/mol to 5 000 000 g/mol when they constitute the water-soluble backbone of a grafted polymer, or a molar mass ranging from 500 g/mol to 100 000 g/mol when they constitute a block of a multiblock polymer or when they constitute the grafts of a grafted polymer.

33. (Currently Amended) The dispersion as claimed in claim 25, in which the units with an LCST ~~consist of~~ are one or more of the following polymers:

- ~~polyethers such as polyethylene oxide (PEO), polypropylene oxide (PPO) and random copolymers of ethylene oxide (EO) and of propylene oxide (PO),~~

- polyvinyl methyl ethers,

- ~~polymeric and copolymeric N-substituted acrylamide derivatives with an LCST, such as poly N-isopropyl acrylamide, poly N-ethylacrylamide and copolymers of N-isopropylacrylamide or of N-ethylacrylamide and of a vinyl monomer corresponding to formula (I)~~



~~in which:~~

~~—— R is chosen from H, CH<sub>3</sub>, C<sub>2</sub>H<sub>5</sub> or C<sub>3</sub>H<sub>7</sub>, and~~

~~—— X is chosen from:~~

- ~~alkyl oxides of OR' type in which R' is a linear or branched, saturated or unsaturated hydrocarbon radical containing from 1 to 6 carbon atoms, optionally substituted with at least one halogen atom (iodine, bromine, chlorine or fluorine); a sulfonic ( $\text{SO}_3^-$ ), sulfate ( $\text{SO}_4^-$ ), phosphate ( $\text{PO}_4\text{H}_2$ ); hydroxyl ( $\text{OH}$ ); primary amine ( $\text{NH}_2$ ); secondary amine ( $\text{NHR}_1$ ), tertiary amine ( $\text{NR}_1\text{R}_2$ ) or quaternary amine ( $\text{N}^+\text{R}_1\text{R}_2\text{R}_3$ ) group with  $\text{R}_1$ ,  $\text{R}_2$  and  $\text{R}_3$  being, independently of each other, a linear or branched, saturated or unsaturated hydrocarbon radical containing 1 to 6 carbon atoms, with the proviso that the sum of the carbon atoms of  $\text{R}' + \text{R}_1 + \text{R}_2 + \text{R}_3$  does not exceed 7; and~~
- ~~$\text{NH}_2$ ,  $\text{NHR}_4$  and  $\text{NR}_4\text{R}_5$  groups in which  $\text{R}_4$  and  $\text{R}_5$  are, independently of each other, linear or branched, saturated or unsaturated hydrocarbon radicals containing 1 to 6 carbon atoms, with the proviso that the total number of carbon atoms in  $\text{R}_4 + \text{R}_5$  does not exceed 7, the said  $\text{R}_4$  and  $\text{R}_5$  optionally being substituted with a halogen atom (iodine, bromine, chlorine or fluorine); a hydroxyl ( $\text{OH}$ ); sulfonic ( $\text{SO}_3^-$ ), sulfate ( $\text{SO}_4^-$ ); phosphate ( $\text{PO}_4\text{H}_2$ ); primary amine ( $\text{NH}_2$ ); secondary amine ( $\text{NHR}_1$ ), tertiary amine ( $\text{NR}_1\text{R}_2$ ) and/or quaternary amine ( $\text{N}^+\text{R}_1\text{R}_2\text{R}_3$ ) group with  $\text{R}_1$ ,  $\text{R}_2$  and  $\text{R}_3$  being, independently of each other, a linear or branched, saturated or unsaturated hydrocarbon radical containing 1 to 6 carbon atoms, with the proviso that the sum of the carbon atoms of  $\text{R}_4 + \text{R}_5 + \text{R}_1 + \text{R}_2 + \text{R}_3$  does not exceed 7;~~
- ~~or of a monomer chosen from maleic anhydride, itaconic acid, vinylpyrrolidone, styrene and its derivatives, dimethyldiallylammonium chloride, vinylacetamide, vinyl ethers and vinyl acetate derivatives; and~~
- polyvinylcaprolactam and vinylcaprolactam copolymers.

34. (Withdrawn) The dispersion as claimed in claim 25, in which the units with an LCST ~~consist of~~ are polypropylene oxide (PPO)<sub>n</sub> with n=10 to 50, or random copolymers of ethylene oxide (EO) and of propylene oxide (PO), represented by the formula:

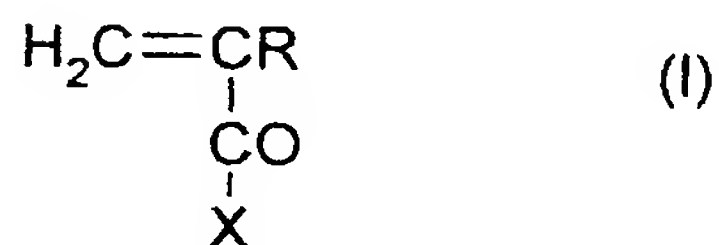


in which m is an integer ranging from 1 to 40 ~~and preferably from 2 to 20~~, and n is an integer ranging from 10 to 60 ~~and preferably from 20 to 50~~.

35. (Withdrawn) The dispersion as claimed in claim 34, in which the molar mass of the units with an LCST is from 500 to 5300 g/mol ~~and preferably from 1500 to 4000 g/mol~~.

36. (Currently Amended) The dispersion as claimed in claim 33, in which the units with an LCST are polymeric or copolymeric N-isopropylacrylamide or N-ethylacrylamide derivatives and the molar mass of these units with an LCST is from 1000 g/mol to 50 000 g/mol ~~and preferably from 2000 to 50 000 g/mol~~.

37. (Withdrawn) The dispersion as claimed in claim 25, in which the units with an LCST ~~consist of~~ are a polyvinylcaprolactam or a copolymer of vinylcaprolactam and of a vinyl monomer corresponding to formula (I)



in which:

- R is chosen from H, -CH<sub>3</sub>, -C<sub>2</sub>H<sub>5</sub> or -C<sub>3</sub>H<sub>7</sub>, and
- X is chosen from:
- alkyl oxides of -OR' type in which R' is a linear or branched, saturated or unsaturated hydrocarbon radical containing from 1 to 6 carbon atoms, optionally substituted with at least one halogen atom ( selected from the group consisting of iodine, bromine, chlorine or and fluorine); a sulfonic (-SO<sub>3</sub><sup>-</sup>),



sulfate ( $-\text{SO}_4^-$ ), phosphate ( $-\text{PO}_4\text{H}_2$ ); hydroxyl ( $-\text{OH}$ ); primary amine ( $-\text{NH}_2$ ); secondary amine ( $-\text{NHR}_1$ ), tertiary amine ( $-\text{NR}_1\text{R}_2$ ) or quaternary amine ( $-\text{N}^+\text{R}_1\text{R}_2\text{R}_3$ ) group with  $\text{R}_1$ ,  $\text{R}_2$  and  $\text{R}_3$  being, independently of each other, a linear or branched, saturated or unsaturated hydrocarbon radical containing 1 to 6 carbon atoms, with the proviso that the sum of the carbon atoms of  $\text{R}' + \text{R}_1 + \text{R}_2 + \text{R}_3$  does not exceed 7; and

-  $-\text{NH}_2$ ,  $-\text{NHR}_4$  and  $-\text{NR}_4\text{R}_5$  groups in which  $\text{R}_4$  and  $\text{R}_5$  are, independently of each other, linear or branched, saturated or unsaturated hydrocarbon radicals containing 1 to 6 carbon atoms, with the proviso that the total number of carbon atoms in  $\text{R}_4 + \text{R}_5$  does not exceed 7, the said  $\text{R}_4$  and  $\text{R}_5$  optionally being substituted with a halogen atom (selected from the group consisting of iodine, bromine, chlorine or and fluorine); a hydroxyl ( $-\text{OH}$ ); sulfonic ( $-\text{SO}_3^-$ ), sulfate ( $-\text{SO}_4^-$ ); phosphate ( $-\text{PO}_4\text{H}_2$ ); primary amine ( $-\text{NH}_2$ ); secondary amine ( $-\text{NHR}_1$ ), tertiary amine ( $-\text{NR}_1\text{R}_2$ ) and/or quaternary amine ( $-\text{N}^+\text{R}_1\text{R}_2\text{R}_3$ ) group with  $\text{R}_1$ ,  $\text{R}_2$  and  $\text{R}_3$  being, independently of each other, a linear or branched, saturated or unsaturated hydrocarbon radical containing 1 to 6 carbon atoms, with the proviso that the sum of the carbon atoms of  $\text{R}_4 + \text{R}_5 + \text{R}_1 + \text{R}_2 + \text{R}_3$  does not exceed 7;

or of a monomer chosen from maleic anhydride, itaconic acid, vinylpyrrolidone, styrene and its derivatives, dimethyldiallylammonium chloride, vinylacetamide, vinyl alcohol, vinyl acetate, vinyl ethers and vinyl acetate derivatives.

38. (Withdrawn) The dispersion as claimed in claim 37, in which the molar mass of the units with an LCST is from 1000 to 500 000 g/mol ~~and preferably from 2000 to 50 000 g/mol.~~

39. (Currently Amended) The dispersion as claimed in claim 25, in which the proportion by mass of units with an LCST in the polymer is from 5 to 70%, ~~preferably from 20 to 65% and better still from 30 to 60%~~ relative to the polymer.

40. (Previously Presented) The dispersion as claimed in claim 25, in which the demixing temperature of the units with an LCST is from 10 to 35°C, for a concentration in water of 1% by mass of the units with an LCST.

41. (Currently Amended) The dispersion as claimed in claim 25, in which the concentration by mass of polymer in the aqueous phase is from 0.01 to 20% ~~and preferably from 0.1 to 10%.~~

42. (Currently Amended) The dispersion as claimed in claim 25, in which the polymer is such that an aqueous solution of this polymer at 2% by weight has a gel point of from 5 to 40°C ~~and preferably from 10 to 35°C.~~

43. (Currently Amended) The dispersion as claimed in claim 25, in which the oily phase comprises at least one oil ~~chosen~~ selected from the group consisting of hydrocarbon-based animal oils ~~of animal or~~ hydrocarbon-based plant oils ~~origin,~~ synthetic esters ~~and,~~ synthetic ethers, linear hydrocarbons, ~~or~~ branched hydrocarbons, essential oils, fatty alcohols, fluoro oils ~~and~~ silicone oils, and mixtures thereof.

44. (Currently Amended) The dispersion as claimed in claim 25, ~~also~~ further comprising one or more adjuvants ~~commonly used in cosmetics and dermatology, such as mineral or organic fillers, surfactants, hydrophilic or lipophilic active agents, preserving agents, gelling agents, plasticizers, antioxidants, fragrances, odor absorbers, antifoams, sequestering agents, pH adjusters, buffers and dyestuffs.~~

45. (Currently Amended) The dispersion as claimed in claim 25, which is in the form of a cosmetic make-up or care composition, ~~which may be applied to the skin, including the~~



~~scalp, the nails, the hair, the eyelashes, the eyebrows, the eyes, mucous membranes and semi-mucous membranes, and any other area of body or facial skin.~~

46. (Withdrawn) ~~Cosmetic use of the dispersion as claimed in claim 25, to treat, care for and/or make up~~ A process of making up facial skin and/or body skin, mucous membranes (lips), the scalp and/or keratin fibres, comprising applying the dispersion as claimed in claim 25 to said facial skin and/or body skin, mucous membranes (lips), the scalp and/or keratin fibres.

47. (Withdrawn) A ~~cosmetic~~ process for treating and/or caring for human keratin materials, ~~wherein~~ comprising applying a dispersion as claimed in claim 25 ~~is applied to the~~ keratin materials.

48. (Withdrawn) A method of stabilizing a dispersion, comprising adding ~~Use of a~~ polymer comprising water-soluble units and units with an LCST, ~~added to the aqueous phase of the dispersion~~ dispersions comprising wherein the dispersion comprises at least one aqueous phase and at least one oily phase, and wherein the polymer stabilizes the dispersion ~~to ensure the stability of these dispersions when they~~ the dispersion is ~~are~~ subjected to temperature variations ~~in the range~~ from 4 to 50°C.

49. (New) The dispersion as claimed in claim 25, wherein the polymer is in the form of a block polymer in the form of a grafted polymer whose backbone is formed from water-soluble units and bears grafts consisting of units with an LCST and which is partially crosslinked.

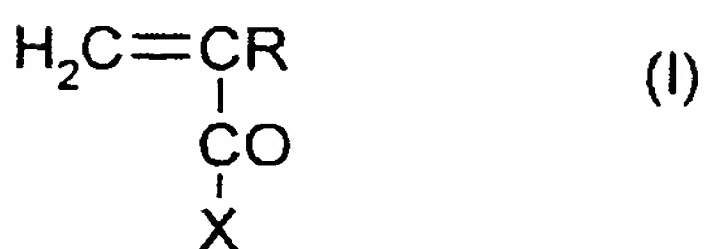
50. (New) The dispersion as claimed in claim 30, wherein the at least one monomer is an N-vinyl lactam and is selected from the group consisting of N-vinylpyrrolidone, N-vinylcaprolactam and N-butyrolactam.

51. (New) The dispersion as claimed in claim 31, wherein at least one component is an alginate derivative which is propylene glycol alginate.

52. (New) The dispersion as claimed in claim 31, wherein at least one component is a galactomannan derivative selected from the group consisting of konjac gum, guar gum, hydroxypropylguar, hydroxypropylguar modified with sodium methylcarboxylate groups, and hydroxypropyltrimethylammonium guar chloride.

53. (New) The dispersion as claimed in claim 33, wherein at least one polymer is a polyether which is selected from the group consisting of polyethylene oxide (PEO), polypropylene oxide (PPO) and random copolymers of ethylene oxide (EO) and of propylene oxide (PO).

54. (New) The dispersion as claimed in claim 33, wherein at least one polymer is polymeric and copolymeric N-substituted acrylamide derivatives with an LCST and is one or more of poly-N-isopropyl acrylamide, poly-N-ethylacrylamide and copolymers of N-isopropylacrylamide or of N-ethylacrylamide and of a vinyl monomer corresponding to formula (I)



in which:

- R is chosen from H, -CH<sub>3</sub>, -C<sub>2</sub>H<sub>5</sub> or -C<sub>3</sub>H<sub>7</sub>, and
- X is chosen from:
- alkyl oxides of -OR' type in which R' is a linear or branched, saturated or unsaturated hydrocarbon radical containing from 1 to 6 carbon atoms, optionally substituted with at least one halogen atom selected from the group consisting of iodine, bromine, chlorine, and fluorine; a sulfonic (-SO<sub>3</sub><sup>-</sup>), sulfate

( $-\text{SO}_4^-$ ), phosphate ( $-\text{PO}_4\text{H}_2$ ); hydroxyl ( $-\text{OH}$ ); primary amine ( $-\text{NH}_2$ ); secondary amine ( $-\text{NHR}_1$ ), tertiary amine ( $-\text{NR}_1\text{R}_2$ ) or quaternary amine ( $-\text{N}^+\text{R}_1\text{R}_2\text{R}_3$ ) group with  $\text{R}_1$ ,  $\text{R}_2$  and  $\text{R}_3$  being, independently of each other, a linear or branched, saturated or unsaturated hydrocarbon radical containing 1 to 6 carbon atoms, with the proviso that the sum of the carbon atoms of  $\text{R}' + \text{R}_1 + \text{R}_2 + \text{R}_3$  does not exceed 7; and

- $-\text{NH}_2$ ,  $-\text{NHR}_4$  and  $-\text{NR}_4\text{R}_5$  groups in which  $\text{R}_4$  and  $\text{R}_5$  are, independently of each other, linear or branched, saturated or unsaturated hydrocarbon radicals containing 1 to 6 carbon atoms, with the proviso that the total number of carbon atoms in  $\text{R}_4 + \text{R}_5$  does not exceed 7, the said  $\text{R}_4$  and  $\text{R}_5$  optionally being substituted with a halogen atom selected from the group consisting of iodine, bromine, chlorine and fluorine; a hydroxyl ( $-\text{OH}$ ); sulfonic ( $-\text{SO}_3^-$ ), sulfate ( $-\text{SO}_4^-$ ); phosphate ( $-\text{PO}_4\text{H}_2$ ); primary amine ( $-\text{NH}_2$ ); secondary amine ( $-\text{NHR}_1$ ), tertiary amine ( $-\text{NR}_1\text{R}_2$ ) and/or quaternary amine ( $-\text{N}^+\text{R}_1\text{R}_2\text{R}_3$ ) group with  $\text{R}_1$ ,  $\text{R}_2$  and  $\text{R}_3$  being, independently of each other, a linear or branched, saturated or unsaturated hydrocarbon radical containing 1 to 6 carbon atoms, with the proviso that the sum of the carbon atoms of  $\text{R}_4 + \text{R}_5 + \text{R}_1 + \text{R}_2 + \text{R}_3$  does not exceed 7;

or of a monomer chosen from maleic anhydride, itaconic acid, vinylpyrrolidone, styrene and its derivatives, dimethyldiallylammonium chloride, vinylacetamide, vinyl ethers and vinyl acetate derivatives.

55. (New) The dispersion as claimed in claim 44, wherein the one or more adjuvants are selected from the group consisting of mineral fillers, organic fillers, surfactants, hydrophilic active agents, lipophilic active agents, preserving agents, gelling agents,

plasticizers, antioxidants, fragrances, odor absorbers, antifoams, sequestering agents, pH adjusters, buffers and dyestuffs.

56. (New) The dispersion as claimed in claim 30, wherein the at least one monomer is a water-soluble styrene derivative, which is styrene sulfonate.

57. (New) The dispersion as claimed in claim 31, wherein at least one component is a cellulose derivative and which is selected from the group consisting of carboxymethyl-cellulose, hydroxypropylcellulose, hydroxyethylcellulose and quaternized hydroxyethylcellulose.

58. (New) The dispersion as claimed in claim 34, wherein  $m$  is an integer of from 2 to 20.

59. (New) The dispersion as claimed in claim 34, wherein  $n$  is an integer of from 20 to 50.

60. (New) The dispersion as claimed in claim 35, wherein the molar mass of the units with an LCST is from 1500 to 4000 g/mol.

61. (New) The dispersion as claimed in claim 36, wherein the molar mass of the units with an LCST is from 200 to 50 000 g/mol.

62. (New) The dispersion as claimed in claim 38, wherein the molar mass of the units with an LCSt is from 2000 to 50 000 g/mol.

63. (New) The dispersion as claimed in claim 39, wherein the proportion by mass of units with an LCST in the polymer is from 20 to 65% relative to the polymer.

64. (New) The dispersion as claimed in claim 39, wherein the proportion by mass of units with an LCST in the polymer is from 30 to 60 % relative to the polymer.

65. (New) The dispersion as claimed in claim 41, wherein the concentration by mass of polymer in the aqueous phase is from 0.1 to 10%.

66. (New) The dispersion as claimed in claim 42, wherein the polymer is such that an aqueous solution of this polymer at 2% by weight has a gel point of from 10 to 35°C.

67. (New) The dispersion as claimed in claim 45, wherein the cosmetic make-up or care composition is in the form suitable for being applied to at least one of the skin, the scalp, the nails, the hair, the eyelashes, the eyebrows, the eyes, mucous membranes, semi-mucous membranes, and other area of body or facial skin